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ABSTRACT

A study investigated the effect of two staff development models--role playing and open instruction--upon teachers' self-awareness and attitudes toward inservice education. In a 2x2x2 design for analysis of variance, 27 composition teachers were randomly assigned, stratified by years of experience, to two parallel but contrasting summer workshops. In assessing self-awareness, teachers rated themselves on 18 variables of group interaction. These self ratings were then correlated with those of the course instructor and a randomly selected anonymous peer, and the mean ratings of the peer evaluation. A 33-item, three scale program evaluation was administered to assess attitudes toward inservice manner or presentation, usefulness to teaching, and usefulness to consulting. Among the findings were the following: (1) role playing as a technique for training agents of change appeared to be more effective than the open instruction method, except that it may have caused participants and instructors to have similar perceptions of group process; (2) more experienced teachers tended to benefit more from inservice education than did teachers with less experience; (3) teachers of low writing apprehension tended to benefit more from inservice education than did teachers of high apprehension; and (4) teachers with an internal locus of control appeared to benefit more from inservice education than did teachers with an external sense of control. (Author/HOD)

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Contrastive Techniques of Training English Teachers To Become Writing Consultants

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Abstract

This study investigated the effect of two staff development models--role playing and open instruction--upon teachers' self-awareness and attitudes toward inservice education. In a 2x2x2 design for analysis of variance, 27 composition teachers were randomly assigned, stratified by years of experience, to two parallel but contrasting summer workshops. To insure that the randomized groups were equal, three instruments were administered: a teaching methodology inventory, a test for writing apprehension, and a locus of control inventory. To insure that the treatment differences were maintained, investigators observed classes, participants kept daily logs, and investigators met weekly with course instructors. (1) The role playing group would benefit more from inservice education than would the open instruction group. (2) Teachers of more experience would benefit more from inservice education than would teachers of fewer years experience, regardless of treatment. (3) Teachers with lower writing apprehension would gain more from inservice education than would teachers of high writing apprehension. In assessing self awareness, teachers rated themselves on 18 variables of group interaction (Litsey, 1969). These self ratings were correlated with those of the course instructor, those of a randomly anonymously selected peer, and the mean ratings of the peer evaluating. Significant correlations were found to exist between instructor and peer in the role playing group but not in the open instruction group. In assessing attitudes toward inservice education, a 33-item three-scale program evaluation

was administered: (1) manner of presentation, (2) usefulness to teaching, (3) usefulness to consulting. No significant differences were found to reject the three null hypotheses at the .05 level. There was one significant interaction--treatment x apprehension (F= 5.30, p .0329). Post study analyses revealed (1) that teachers in the role playing group spent significantly more time in outside preparation than did teachers in the open instruction group. More important, teachers with internal locus of control scored significantly higher on the program evaluation form on all three scales than did the teachers with external locus of control.

Contrastive Techniques of Training English Teachers To Become Writing Consultants[1]

In the last decade, staff development, or inservice education, has become a prominent issue in education, whether motivated by decreasing employment opportunities for beginning teachers or by the exhausting proliferation of "innovative" teaching techniques and materials. McLaughlin and Berman (1977) reviewed 293 such projects, just those funded through Title III and Title IV. Bruce Joyce (1977) made a study of 1500 learning centers where teachers came for staff development. California, alone, lists 227 currently operating staff development projects (Far West Laboratory, 1979).

Unfortunately, staff development projects frequently fail to accomplish their goals by not being able to bring about desired changes in teacher behavior. Berman and McLaughlin (1977), for example, noted that most of the projects they studied failed to change behavior for a variety of reasons: (1) teachers were not involved in the planning of the project, (2) inservice sessions did not deal with teachers' perceived classroom concerns, and (3) administrative support for the proposed innovation was not extant. Joyce (1977) suggested that inexperienced teachers, those who could benefit most from staff development projects, tended to be less eager to participate than did their more experienced counterparts. Using a 2x2x2 ANOVA design, Donlan (1980) tested the main effects and interactions of inservice model x years of experience x locus of control. The following generalizations were drawn from the analysis of data:

1. In support of Berman and McLaughlin, teachers tended to prefer the developmental model to the deficit model ($p<.05$).
2. In support of Joyce, teachers of more years experience tended to evaluate the program higher than did teachers of fewer years of experience ($p<.05$).
3. Locus of control appeared to have no effect on how teachers perceived the effectiveness of their inservice program.

The Problem

The study conducted by Donlan (1980) raised several questions. Whereas it was clear that the developmental model was superior to the deficit model, it wasn't clear which components of the developmental model proved to be most effective. Also, given two possible variations of developmental inservice education, it was questioned whether experienced teachers could continue to get more out of inservice education than did less experienced teachers. Third, since locus of control appeared to have no significant effect, might another measure of internal control be substituted, an instrument more specific to the teachers' content area, specifically composition? In designing the study, investigators measured the effect of two parallel developmental treatments contrastive only in one variable, on self awareness and attitudes toward inservice education. To test differential effects, scores from more experienced teachers would be compared to those of less experienced teachers; scores from teachers of high writing apprehension with those of low writing apprehension.

Research Questions, Hypotheses, and Design

A study was designed to test main effects and interactions among these three variables. First, would teachers trained in the role-playing model benfit from the inservice program than would comparable teachers trained in the open instruction model? Second, would more experienced teachers benefit more from the program than would less experienced teachers? Third, would teachers who were less apprehensive about their writing benefit more from the program than would more apprehensive teachers? Fourth, what interactions might exist among treatment, experience, and apprehension?

These questions were generated into experimental hypothesis:

H_1: role-playing > open instruction

H_2: more experienced > less experienced

H_3: less apprehensive > more apprehensive

To test these hypotheses, a 2x2x2 design for analysis of variance was selected:

	Role-Play	Open
More Exp.		
Less Exp.		

Procedure

Choosing Treatments

The inservice treatments were designed (after Joyce, 1978) to be identical, except for one variable, the process by which the participants responded to each other's presentations: (a) assuming preselected roles (RP) and (b) responding naturally and openly (OI).

What follows is a comparative list of program features:

RP	OI
1. Pre-set objectives modified by group.	1. Pre-set objectives modified by group.
2. Discussion topics pre-selected and modified by group interest.	2. Discussion topics pre-selected and modified by group interest.
3. Recommended reading assignments.	3. Recommended reading assignments.
4. Group leader functions as a facilitator.	4. Group leader functions as a facilitator.
5. Required daily attendance.	5. Required daily attendance.
6. Demonstration teaching.	6. Demonstration teaching.
7. Participant demonstrations reacted to by pre-selected roles.	7. Participant demonstrations reacted to naturally.

RP Treatment. Thirteen teacher-role cards were developed, each with four variables: (1) years of experience, (2) three dominant personality traits, (3) attitude toward students, and (4) attitude toward teaching. A sample card might look like this:

(1) 14 years experience

(2) helpful, flexible, formal

(3) enjoys teaching

(4) feels children need discipline

Each time a teacher participant would make a formal presentation, the 13 peers would draw role cards out of a box and respond to the presenter "in-role." Participants logged each role they played and described how they fulfilled the role. The rationale is that future consultants needed experience dealing with a range of teacher types. Role playing and role discussion hopefully would facilitate increased awareness (Joyce, 1978).

OI Treatment. Each time a teacher participant would make a formal presentation, the 12 peers would respond naturally in a 10-point rating scale. The rationale is that members would be overly supportive for the sake of group harmony--an unreal situation for consultants.

Determining Years of Experience

The number of years of classroom teaching under a valid teaching credential was used as the index of experience. Excluded was any paraprofessional or student teaching experience. As program participants were being selected, years of experience were noted. Eventually each treatment group would be divided into top-half (more experienced) and bottom-half (less experienced).

Measuring Writing Apprehension

The Writing Apprehension Test (Daly & Miller, 1975a,b) was used to determine the degree of apprehension program participants had about their own writing. The instrument is a 26-item inventory with a five point scale: Strongly Agree (SA), Agree (A), Undecided (U), Disagree (D), and Strongly Disagree (SD). By combining "plus" and "minus" points and subtracting 78, an apprehension score can be derived for

each participant. A low numerical score indicates low apprehension; a high score, high apprehension. Scores from each treatment group would be divided into top-half (high apprehensive) and bottom-half (low apprehensive).

Selecting the Participants

Twenty-seven teachers were selected to participate in a five-week summer workshop. A larger number would have been preferable, but funding constraints precluded a larger sample. To qualify, each teacher needed (1) to obtain a support lettr from the building principal, (2) to pass a group and individual interview screening process, (3) to make an hour presentation of good teaching techniques to be evaluated by their peer participants and (4) to agree to comply with the project's evaluation criteria, including a willingness to teach a demonstration class of junior high school students on campus for a special summer program, and to keep a daily journal. Five judges, two university professors, two county school directors of English curriculum, and the program director of continuing education, evaluated applicants' performance on the basis of (1) knowledge of the composing process, (2) a sense of the process of inservice education, (3) interpersonal skills, and (4) sensitivity to cultural differences among students. Forty candidates were interviewed; 27 were selected. Table 1 contains data on the teachers selected to participate in the project.

Insert Table 1 about here

Selecting the Group Leaders

In addition to selecting the participants, the five-member interviewing team interviewed eight candidates for summer workshop instructors. Qualifications included participation in the previous summer's program, demonstrated teaching excellence, and willingness to conform to the specified treatments. Table 2 shows the data on the two selected instructors.

Insert Table 2 about here

Assignment to Treatment

Stratified by years of experience, the 27 participants were randomly assigned to treatment--role playing and open instruction. The two instructors chose their treatment groups, not knowing which teachers had been assigned to which group. Table 3 presents data on the instructors and participants randomly assigned to treatment.

Insert Table 3 about here

Detecting Additional Differences in Randomly Assigned Groups

At the start of the summer session, participants were administered three instruments to help determine if the groups were, in fact, equal. The first instrument, The Methodology Inventory (Donlan, 1979), is a 76-item list of teaching behaviors that composition teachers perform, geared to a four-point scale: "During the past year, I (4) frequently (3) occasionally, (2) infrequently, and (1) never engaged in this behavior." The 76 items are grouped into

eight categories. Table 4 presents the mean scores and standard deviations the participants in the two treatments groups achieved on the Methodology Inventory.

Insert Table 4 about here

The second instrument administered was the Writing Apprehension Test. Investigators felt that writing apprehension could affect the manner in which teachers responded to the composition workshop. Table 5 shows the results from the writing apprehension test.

Insert Table 5 about here

The third instrument administered was the Rotter Internal- External Locus of Control Scale (Lefcourt, 1976). Since part of the project was to train consultants (agents of change) the locus of control might indicate how teachers felt change comes about, for instance, by chance or by direct action. Table 6 presents the mean scores and standard deviations of the two groups compared to those of (a) the two groups in the previous study (Donlan, 1980) and (b) other group norms (Lefcourt, 1976).

Insert Table 6 about here

Results from Tables 4, 5, and 6 suggest that there were small differences between the groups. Whereas the role-playing (RP) group

scored slightly higher in the Methodology Inventory and tended to be slightly more external, than the open instruction (OI) group, the two groups had almost equal scores in writing apprehension. No differences, however, were significant.

Maintaining the Distinctness of Treatment

Steps were taken to insure that the two groups remained distinct during the five-week period. First, the groups were kept apart, except for six one-hour periods, when they met jointly to hear guest speakers and attend a social function afterward (6 out of 120 program hours). Second, both groups were prevented from exchanging ideas and materials. For example, materials could be disseminated only in amounts of 14 (RP) and 13 (OI), respectively. Third, class sessions were observed to insure that the models were being followed. Fourth, the experimenter and the two instructors met once a week to plan activities and to insure that the treatments were, in fact, being employed. Fifth, participants kept daily logs, which provided supportive data that the two treatments were distinct. RP participants logged each role they played and described how they responded in that role.

Collecting Data and Interpreting Results

To determine how much teachers benefited from the summer inservice program, investigators wanted to assess (1) how participants' self evaluations correlated with external evaluations, namely those of the instructor and an anonymous, randomly selected peer from the same treatment group; (2) how positively the participants evaluated the summer workshop. Two instruments were used: (1) self-analysis of

group interaction behaviors (Litsey, 1969) and (2) the program evaluation form. In addition, daily log entries were studied.

(1) Group Interaction Behaviors

David Litsey's (1969) inventory of eighteen behaviors is concerned with group processes: task (6 items), maintenance (6 items), and negativism and self-service (6 items). As in the earlier (Donlan, 1980) study, Litsey's 6-point scale was reduced to a 4-point scale: (4) frequently, (3) occasionally, (2) rarely, (1) never. To achieve a composite score, points from the self-service roles were subtracted from points from the combined task and maintenance roles. First, the participants rated themselves using the Litsey scale. Next, the instructors rated each of the participants in their respective treatment groups. Third, each participant evaluated a specific peer in the same treatment group. Intercorrelations were calculated among (1) self evaluations, (2) instructors' evaluations, (3) peer evaluations, and (4) mean score of the 3 evaluations of the peer evaluating. For instance, consider the hypothetical situation where Mary evaluates her peer George:

	Mary	George
Self-Eval.	25	27
Instructor Eval.	14	15
Peer Eval.	13	12
	52	
	X 17.3	

George's intercorrelated scores would be --

Self X Instructor X Peer X Mary X Evaluations

or

27 X 15 X 12 X 17.3

The purpose of the fourth intercorrelation is to see whether a low-performing participant would tend to evaluate a peer as low-performing. Using Pearson correlation formula, correlation coefficients were determined (a) by treatment, (b) by years of experience, and (c) by writing apprehension level. Table 7 presents the data on significant intercorrelations found as a result of this analysis:

Insert Table 7 about here

As Table 7 suggests, there is a general significant degree of correlation only between teacher and peer evaluation, except in the open instruction group. Also, the self evaluation of less experienced teachers tend to correlate significantly with peer evaluations. Several tentative conclusions might be drawn from these data. First, teachers in inservice education may tend to view themselves differently than their instructors or peers view them. Second, there is a tendency for instructors and peers to perceive a given participant in a similar way. Third, a role-playing setting appears to foster instructor/peer correlation; whereas open instruction does not. Fourth, less experienced teachers tend to have self-perceptions that correlate with their peers' perceptions of them; whereas, more experienced teachers don't have this tendency. Fifth, level of apprehension has little influence on the correlation of instructor/peer evaluations.

(2) Program Evaluation Form

The program evaluation consists of 33 program variables which participants rated on three four-point scales: Scale One (Usefulness to me as a teacher), Scale Three (Usefulness to me as a consultant). The scales were evaluated separately. The highest number of points a participant could achieve was 132 (33 x 4). A 2x2x2 points ANOVA was performed to determine significant ($p<.05$) main effects and interactions.

With respect to Scale One, there were no significant differences by treatment, by experience, or by apprehension. There was, however, one trend toward significance ($F=3.06, p<.0964$), suggesting that more experienced teachers found the program to be of a higher quality than did less experienced teachers, a finding supported earlier (Donlan, 1980). There were no significant interactions.

Concerning Scale Two, there were no significant differences by treatment, by experience, by apprehension. However, there were two trends toward significance. First, experienced teachers may have found the program more useful to teaching than did less experienced teachers ($F=4.04, p<.0589$), a finding not supported earlier (Donlan, 1980). Second, teachers with low writing apprehension may have found the program more useful to their teaching than did teachers with high apprehension ($F=3.69, p<.07$). There were no significant interactions.

Regarding Scale Three, there were no significant main effects, nor any trends toward significance. There was, however, a significant treatment apprehension interaction ($F=5.30, p<.0329$). By examining

cell means and standard deviations, one can see that teachers of higher writing apprehension tended to value the role-playing treatment more highly than the open instruction treatment. The reverse appears to be true for the teachers with lower writing apprehension. One explanation might be that the role-playing group provided a structure that apprehensive teachers may have found reassuring. On the other hand, teachers with little apprehension may have found the role-playing treatment confining.

Additional Analysis

Since no significant ($p<.05$) main effects occurred with respect to the three program evaluation scales, investigators conducted additional analysis to determine answers to these questions:

1. What effect did time spent on the summer project have on teachers' evaluations?
2. What effect did demonstration teaching have on teachers' evaluations?
3. What effect did locus of control have on the summer project.

Time Spent on Project

At the conclusion of the program teachers were asked to log the number of out-of-class hours they spent in preparation and exploration related to the summer workshop. Ten categories were used:

1. Travel to and from project
2. Reading and study related to project
3. Writing position papers
4. Preparing for presentation
5. Preparing for other performance e.g., demonstration teaching

6. Writing in the log
7. Conversing with instructors and colleagues
8. Nonassigned composing
9. Conversing with outsiders about project
10. Work in related extension course

Outside time was to be logged, by week, between the start of the project to the conclusion. It was calculated that, subtracting the 120 in-class hours, the highest possible number of logged hours would be 768. Using the original 2 x 2 x 2 design an ANOVA was performed on the total number of logged outside hours. There was a treatment main effect but no interactions. The role-playing group spent significantly more outside time than did the open instruction group ($F=8.90, p<.007$). However, when the variable of logged hours was correlated to program evaluation scores, there were no significant correlations. In effect, although the role-playing group spent significantly more time preparing for class, the time seemed to have no effect on their perceptions of the program.

One explanation for the increased time in the role-playing group was that 5 teachers were concurrently enrolled in a university extension course, related to the project; whereas only 2 were enrolled from the open instruction group. To determine whether the extension program had a skewing effect on the data, mean scores and standard deviations were derived for each treatment group including and excluding the extension course participants. Table 8 shows those results.

Insert Table 8 about here

As Table 8 indicates, the extension course accounts for the wide variance within the role-playing group. However, discounting extension students, the role playing group still put in considerably more hours of outside preparation.

Effect of Demonstration Teaching

Sixteen teachers were randomly selected to present composition lessons to a class of 30 junior high school students from a special university summer program. Eight were drawn from each treatment group, 4 high apprehensive, 4 low apprehensive. Program evaluation scores of demonstration teachers (N=16) were compared to those scores of non-demonstration teachers (N=9). A two-tailed *t* test revealed no significant difference ($p<.05$) for any of the three scales.

The Effect of Locus of Control

The locus of control scores of the bottom half (internal) tachers were compared to those of the top half (external) teachers. A two-tailed *t* test revealed significant differences ($p<.05$) on each of the three scales. Table 9 reports those findings.

Insert Table 9 about here

Results from Table 9 suggest that locus of control may have affected program evaluations more than either treatment, experience, or writing apprehension. Although these findings conflict with those in the earlier study (Donlan, 1980) one might assume that programs that train teachers to be agents of change may be more effective with teachers

with an internal sense of control, than with an external sense of control.

Conclusion

Returning to the original experimental hypotheses, one can review the findings of the study, as summarized in Table 10.

Insert Table 10 about here

As Table 10 suggests, certain generalizations about this research study:

About Treatment

1. Role Playing as a technique for training agents of change appears to be no more effective than the open instruction (natural) method, except that it may cause participants and instructors to have similar perceptions of group process.

2. The role-playing treatment may not have been sufficiently powerful to produce differences in behavior, or teachers may have difficulty maintaining roles, as suggested in the logs. Despite this, the role playing group generated significantly more outside work.

About Experience

1. As in the earlier study, more experienced teachers tend to benefit more from inservice education than do teachers of fewer years experience. Experienced teachers tend to have a more distorted view of their contributions than do teachers of fewer years experience. Perhaps experienced teachers tend to be more critical of themselves than instructors or peers.

About Writing Apprehension

1. Teachers of low writing apprehension tend to benefit more from inservice education than do teachers of high apprehension. Teachers concerned about their own writing abilities, may develop defensive and negative attitudes about inservice education.

2. Teachers with high apprehension may prefer the structure of the role playing model to the open instruction because it may offer more security.

About Locus of Control

1. Contrary to the findings of the earlier study, locus of control appears to have an effect on how teachers perceive the effectiveness of the inservice program. Teachers with an internal sense of locus of control appear to benefit more from inservice education than do teachers with external sense of control.

2. Accordingly, effective change agents may need to feel that change is effected through purposive human action, rather than through chance.

The problem of developing effective inservice programs continues to be perplexing. For English teachers trained to be change agents, staff development models, years of experience, writing apprehension, and locus of control are variables worthy of continued and extensive research. What is effective for one teacher may not be effective for another. Just as educators accept individual differences among students, they must also accept these differences among teachers.

Footnote

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Table 1

Data on teachers selected to participate in the summer workshop

Grade Level Taught	N Teachers	X Years of Experience	Range in Experience
K-3	7	13.3	5-17
4-6	8	8.5	2-29
7-9	8	7.8	1-16
10-12	4	10.9	4-28

Table 2

Data on the instructors selected to teach the summer workshop

Instructor	Grade Levels Taught	Years of Experience	Assignment
A	5-8	20	Role-Playing
B	4-6	22	Open-Instructional

Table 3

Data on instructors and participants randomly assigned to treatment

	Role-Playing	Open Instruction
Instructor	A	B
N Teachers	14	13
X Years Experience	9.5	10.2
X Years Lower Half	4.1	3.5
X Years Upper Half	14.9	16
N K-6	5	10
N 7-12	9	3

Table 4

Results from the Writing Apprehension Test in terms of mean scores and standard deviations, by treatment

Treatment	$\bar{X}$	SD
Role-Play	51.6	11.5
Open Instruction	51.9	11.1

Table 6

Results in terms of mean scores and standard deviations, by treatment, from the Rotter Internal-External Locus of Control Scale, norms of other groups

Date	Group	N	X	SD
1982	RP	14	10.4	4.7
1982	OI	13	8.9	3.0
1980	Structured Instruction	12	10	3.9
1980	Open Instruction	12	8.9	3.7
1967	College Males	62	6.82	2.49
1970	Female Undergraduates	180	8.34	3.85
1971	Administrators of 11 years	27	5.41	3.15

Table 7

Significant intercorrelations among self-evaluation, instructor evaluation, peer evaluation, and mean scores of peer evaluating, by treatment, by experience, by writing apprehension level

Group	Intercorrelated Variables	Correlation Coefficient	Significance $p<.05$
Total Sample	Instructor x peer	.6388	.000
Role-Play	Instructor x peer	.9203	.000
Open Instruction	None	-	-
More Experience	Instructor x peer	.7653	.001
Less Experience	Self x peer	.5992	.03
Low Apprehension	Instructor x peer	.6993	.005
High Apprehensive	Instructor x peer	.5914	.033

Table 8

Mean scores and standard deviations for logged outside hours, by treatment: (a) including extension students (b) excluding extension students

	With (N=27)		Without (N=20)	
	X	SD	X	SD
Role-Play	126.9	42.1	109.8	10.5
Open Inst.	77.4	20.3	74.9	17.4

Table 9

Results from the program evaluation, according to external/internal locus of control

Variable	Group	N	X	SD	t value	df	2-Tail Prob.
Scale 1	Internal	14	110.3	11.6	2.35	25	.027
	External	13	100.9	8.7			
Scale 2	Internal	14	106.9	10.1	3.46	25	.002
	External	13	90.1	14.7			
Scale 3	Internal	14	101.9	15.3	2.19	25	.038
	External	13	[illegible].5	16.6			

Table 10

Review of study's findings of main effects, by research hypothesis, according to significance ($p<.05$) and trends toward signifiance ($p<.10 - >.05$)

Hypothesis	Variable							
	Scale 1 Presentation	Scale 2 Teaching	Scale 3 Consulting	Correlations S/I	S/P	I/P	SPI/P	Hours
RP > OI	ns	ns	ns	ns	ns	.000	ns	.00
More > Less	.0964	.0589	ns	ns	ns	.001	ns	ns
Low AP > High AP	ns	.07	ns	ns	ns	.005	ns	ns
Taught Didn't teach	ns	ns	ns	-	-	-	-	-
Internal External	.027	.002	.038	-	-	-	-	-